BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Joint Application of Wisconsin Electric Power Company and Wisconsin Gas Company, both d/b/a We Energies, for Wisconsin Electric Power Company to Increase Its Electric, Natural Gas, and Steam Rates and for Wisconsin Gas Company to Increase Its Natural Gas Rates

Docket No. 05-UR-102

REBUTTAL TESTIMONY OF LEE SMITH
ON BEHALF OF THE CITIZENS UTILITY BOARD
October 31, 2005

Q. What is your name and business address?

A. My name is Lee Smith, and I work for La Capra Associates, 20 Winthrop Square, Boston, Massachusetts.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the Citizens Utility Board of Wisconsin ("CUB").

Q. Have you testified previously in this proceeding?

A. Yes. I submitted direct testimony on October 10, 2005.

Q. What is the purpose of your rebuttal testimony?

A. I am responding to the testimony of Mr. Alan Chalfant on the subject of cost allocation.

Q. What is Mr. Chalfant's position with regard to the Company's cost allocation methodology?

A. Mr. Chalfant argues that the Company's cost allocation study is biased because it uses the equivalent peaker allocation methodology. He criticizes the equivalent peaker methodology, arguing that it results in subsidies flowing from high load factor customers to low load factor customers. He further seems to argue that an equivalent peaker method

of allocating capacity costs should be accompanied by allocation of less expensive fuel costs to high load factor customers. I will testify as to why Mr. Chalfant's presentation is in error.

Q. What is the basis on which Mr. Chalfant claims that the equivalent peaker method results in high load factor customers subsidizing low load factor customers?

A. After stating the reasonable position that subsidies result "whenever revenue responsibility does not track cost causation" (p. 4), he concludes that since capacity costs should be allocated only on the basis of share of peak load, the equivalent peaker (and presumably any method not based on peak load shares) results in subsidies.

Mr. Chalfant offers a simple example, using two rate classes, in which the industrial class uses twice as much energy per unit of demand as the residential class, and annual fixed costs associated with generation capacity are $240,000. He calculates that if all capacity costs are allocated on the basis of energy, the industrial class will pay $40,000 (or 33%) more for capacity than if the capacity costs were allocated solely on the basis of demand. (Chalfant testimony p. 5 lines 7-9) He then calls this computation evidence of subsidization.

Q. Please comment on what Mr. Chalfant's computation does or does not demonstrate.

A. Mr. Chalfant is correct that, based on his assumptions about loads and prices, the industrial class will pay more for capacity costs than if the allocation were done on the basis of demand alone. However, this illustrates neither how the equivalent peaker method would usually allocate costs, nor that there is any subsidy resulting from this method.

This computation does not illustrate the equivalent peaker method, because it allocates all capacity cost based on energy, whereas the equivalent peaker method only allocates a portion of capacity on the basis of energy. That portion is the additional costs above the costs of peaking capacity which the Company has incurred in order to build baseload and intermediate capacity.

This difference in cost to high load factor customers does not demonstrate a subsidy, but merely that allocating a portion of capacity costs based on energy produces different results than allocating those costs entirely on the basis of demand. Mr. Chalfant appears to conclude that there is a subsidy because he assumes that demand is the correct basis for allocating capacity cost.

Q. What is the basis for Mr. Chalfant's claim that capacity costs should be allocated only on demand?

A. This is based on the argument that capacity costs are fixed and therefore should be classified as demand-related and allocated on the basis of demand.

Q. Do you disagree with this claim?

A. Yes. Cost allocation should be based on more than whether costs are fixed or variable. Using such a distinction as the basis for cost allocation ignores the basic principles of portfolio planning. Capacity costs may be fixed in the short term, but the cost of capacity depends fundamentally on how the system was planned; a higher percentage of baseload (and intermediate) plant results in higher capacity costs.

Q. Does Mr. Chalfant say anything else regarding the equivalent peaker methodology?

A. Yes. He says that "baseload units are constructed in order to reduce total costs, not simply fuel costs. Thus, all customers benefit from having the most efficient mix of plants, not just high load factor customers." (p. 6)

Q. Does this demonstrate a "flaw" in the equivalent peaker methodology, as Mr. Chalfant states?

A. No, it does not. The point is that high load factor customers benefit more from having lower cost energy than do low load factor customers. We should also note that the "most efficient mix of plants" depends on the system load shape, and the mix would be different if the system were designed to meet either a higher or a lower load factor.

Q. Is Mr. Chalfant's example instructive?

A. Mr. Chalfant's example, cited earlier, where all capacity costs are allocated on the basis of energy, can be used to illustrate how high load factor customers benefit more from energy savings than low load factor customers. For example, let's add to Mr. Chalfant's example the assumption that all of this capacity is baseload capacity,[1] and that the per kWh energy costs from baseload capacity are $.02 while the energy costs would have been $.06 if only peaking units had been built. This assumed relationship between energy costs is conservative, compared to WEPCO's actual units, which show a greater difference between baseload and peaking energy costs.

Using these numbers, the residential class would pay $72,000 (Mr. Chalfant's assumed 300,000 kWh per month times 12 months times $.02) for energy annually if there was only baseload capacity and $216,000 for energy in the peaking capacity only situation. In other words, residential customers would receive total energy savings of $144,000.[2] The industrial class would pay $144,000 for energy in the baseload only situation and $432,000 for energy in the peaking capacity only situation, for total energy savings of $288,000. The industrial customers would have paid $40,000 more in capacity costs because capacity costs were allocated on the basis of energy, but they will have saved $288,000 in energy costs because the generating capacity was baseload rather than peaking capacity.

Q. Mr. Chalfant further argues that if an equivalent peaker method is used for capacity costs, high load factor classes should be allocated a lower than average fuel cost. Please comment on this argument.

A. It is certainly true that average energy costs per kWh will be less if some baseload plant is installed, compared to a situation where all capacity was peaking plant. Mr. Chalfant argues that if the equivalent peaker method is used, then high load factor customers should be allocated a lower than average fuel cost, although he does not specify on what

[1] This is consistent with Mr. Chalfant's example, as the equivalent peaker method would only allocate most capacity on the basis of energy if the capacity were all baseload capacity. Even then a portion equal to the peaker price of that amount of capacity would be allocated on demand.

[2] The system would have, and therefore residential customers would have paid for, considerably more baseload capacity than needed to supply residential load.

that allocation would be based. Mr. Chalfant's suggestion with regard to fuel costs might make sense if high load factor customers paid for capacity entirely on the basis of the cost of baseload plant,[3] in which case they would have a claim for energy based on the cost of baseload energy. However, this is not the case in this proceeding. The average unit cost of WEPCO capacity is less than the average unit cost of baseload capacity, and the Company has allocated only a portion of that capacity cost on energy. High load factor customers receive more total energy savings than low load factor customers because they use more energy.

Mr. Chalfant may be arguing that high load factor customers do not receive adequate energy cost savings relative to their payment for capacity. He has not demonstrated that this is or even is likely to be the case. The earlier illustration of energy savings based on his example indicates that the energy savings received by high load factor customers can be considerably larger than the additional amount of capacity costs which they pay under the equivalent peaker methodology compared to what they would pay if capacity costs were allocated only on demand.

Q. Mr. Chalfant claims that the Public Utility Commission of Texas rejected the "capital substitution" model because of a lack of fuel symmetry. Is this relevant to the proposed allocations in this case?

A. No. First, many commissions have accepted the equivalent peaker method or the peak and average allocation method, which usually produces very similar results. Second, the Texas Commission criticism appears to be aimed at a situation in which energy is the primary allocation factor and in which high load factor customers will not receive the benefit of lower fuel costs. In contrast, in this case, the allocators proposed by the Company would allocate 62% of production capacity cost on demand[4] as an allocation factor, and Wisconsin high energy users will enjoy large savings in energy costs. While

[3] In actuality, even a system planned for a baseload use (very flat) would also need to hold some peaking capacity as reserves.

[4] I have advocated only 40% be allocated on demand, based on the differential in capacity costs of new capacity.

it might be appropriate to allocate energy costs on peak and off-peak energy, the Company has indicated this would make little change in the results in this case.

Total generating capacity costs reflect the mix of baseload and peaking capacity. The equivalent peaker methodology reflects the tradeoff between energy and capacity costs in allocating those total costs. High load factor customers enjoy savings in their energy bill which are determined by the size of their energy usage, and so they are asked to pay, on an energy basis, for some of the additional capacity costs which the utility incurred to achieve those energy savings. Mr. Chalfant's suggestion that use of the equivalent peaker method should be accompanied by charging a lower than system average fuel cost could provide high load factor customers energy at baseload energy prices, while charging for capacity at a cost lower than baseload capacity.

Q. Mr. Chalfant further takes issue with the Company's demand cost allocator. Please comment.

A. Mr. Chalfant points out that WEPCO is a summer peaking utility, and argues that it is not sensible to allocate any cost responsibility on peak loads in months like April for plant that was designed to meet WEPCO's peak load in months like July. However, the Company must plan the system to have capacity available to meet peak load in every month. The Company has a number of very large generating units which must be taken out of service for maintenance on a regular basis. In the summer it must plan for its expected load. In what are lower load months, it must plan for expected load plus reserves plus additional reserves for units which are down for scheduled maintenance. The 2004 monthly demands suggest that some months are quite low. However, the Company schedules a great deal of its maintenance during these months.

It is important to note that it is not possible to draw conclusions about capacity planning from load data from a single year and without data on the Company's maintenance needs. The Company needs to plan for the possibility of relatively high needs in the fall and spring months when it schedules maintenance on large units. To sum up, peak loads matter to planners in months outside the summer peak period.

Q. Mr. Chalfant argues that a minimum distribution system allocation methodology is the correct approach to allocating distribution costs, as it recognizes the need to "cover the system." Please comment.

A. Utilities with more territory and more miles of road will need to spend more on their distribution system than utilities with less territory and miles of road. However, this is a function of geography, not of number of customers, and is therefore not a justification for allocating part of distribution costs on the basis of the number of customers, which the minimum distribution system does. If we examined two systems with similar geography, we would expect to find similar distribution systems, even if one system had more customers than another.

Mr. Chalfant also argues that "some facilities of at least a minimum size must be constructed" (p. 12) because of the existence of customers. This is in fact the justification for the minimum system methodology. The logical fallacy is evidenced by the fact that utilities would not build distribution for minimum loads. I believe there are no such systems, or even portions of systems, in the United States. Utilities' unwillingness to build to meet minimum loads is evidenced in line extension policies that relate the amount of plant the utility will install (without a customer contribution) to the expected load or revenue from the customer.

Q. Mr. Chalfant argues against the Company's proposed increase to the General Primary class, because of his criticisms of the Company's allocation of generation capacity costs and because the cost of service study was based on the full deficiency whereas the revenue increase is much smaller. Please comment.

A. Neither of Mr. Chalfant's arguments supports an equal percentage increase. The Company is not even proposing that the General Primary increase be as large as its computed deficiency, but merely that it should be a larger percentage than the system average increase. I have recommended changes to allocation in the cost of service study, and the resulting cost of service study shows the General Primary class has an even higher deficiency than the Company's original cost of service study. There is no

evidence that suggests that even if the cost allocation study had been based only on the requested deficiency, the results would have been much different in terms of relative class deficiencies.[5]

Q. Does this complete your prefiled rebuttal testimony?

A. Yes, it does.

[5] In fact, this revised cost of service study was based on a much smaller total deficiency than the Company's original study.